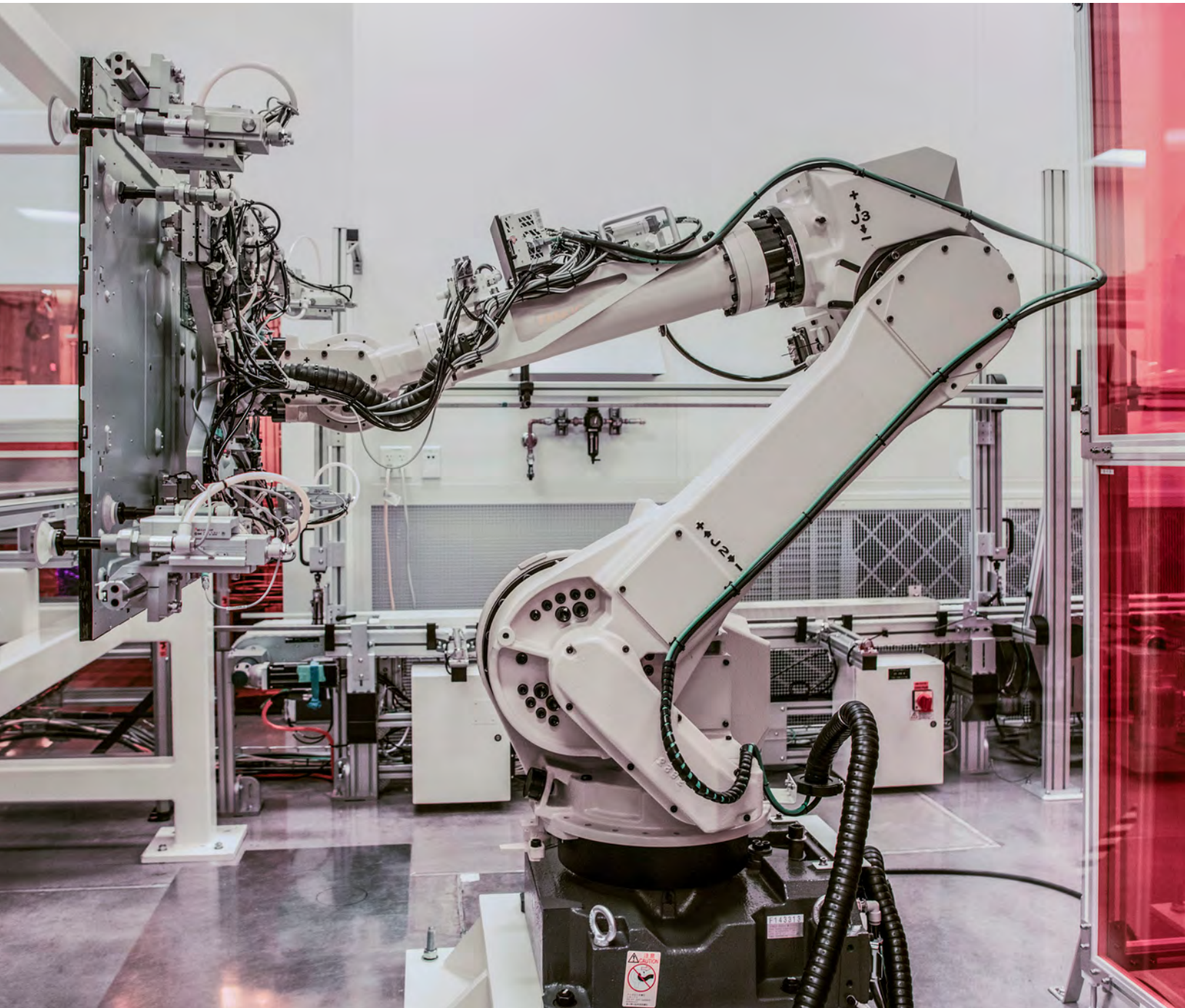
Microsoft

White paper

Business Leaders' Guide to Robotic Process Automation (RPA) Migration

A comprehensive white paper on why, when and how to migrate your RPA platform



Summary:
This is a technical white paper outlining considerations for defining, planning, deploying and managing an enterprise RPA migration.

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Executive summary

The business case for RPA implementation, like most emerging technologies, is undeniably strong. However, selecting the appropriate technology, identifying the processes to automate, and implementing with the most optimal architecture has created uncertainty in the minds of business leaders. The early adopters of RPA seem to be faced with challenges such as:

- Code-heavy deployment that requires continuous debugging efforts.
- High change management and governance overheads.
- Significantly varying productivity claims.
- Silo implementations within business units.
- Technical ambiguity.
- Lack of unanimous cloud readiness.

As a result, re-evaluating the RPA strategy has become an inevitable quest for enterprises. With over 150 RPA products in the market providing varying degrees of productivity, design quality and approaches, it is imperative for business leaders to understand the technical intricacies.

Gartner's recent predictions on the RPA maturity mentioned that, **"Through 2021, 40% of enterprises will have RPA buyer's remorse due to misaligned, siloed usage and inability to scale further."**

In the near future, RPA products will eventually be segregated broadly into those that provide tactical benefits across desktop environments and others that deliver more strategic transformation at large scale enterprises. Organisations that aim to scale their RPA projects, must progressively gravitate towards technology that offers business-led design principles. This means the platforms that offer **no-code or low-code** deployments. Additionally, a collaborative approach, using a centralised RPA platform, may help bridge the efforts between the human and digital workforce to deliver, share and expand automation initiatives across the organisation.

This white paper provides a comprehensive guide for business and technology leaders who have already embarked on the RPA journey. It outlines a clear methodology and framework for migrating

from the traditional RPA to modern Low-Code or No-Code platforms in the new era. It shows how to better harness technology, gain stakeholders' buy-in and optimise the automation outcomes, thereby increasing ROI. This white paper can also help those who are not migrating from an existing platform, but initiating a net-new RPA implementation from scratch.

The core objective of this document is to help a business or technology leader relate and identify with some of the challenges commonly faced during and after an RPA implementation. It also provides reasons to deliberate 'Why' and 'When' to consider switching to more advanced RPA platforms. More importantly, it provides a comprehensive toolkit on 'How' to proceed if you have established the need to migrate to an advanced RPA solution or provider.

The RPA migration toolkit section of this white paper explains the factors to consider when deciding to migrate, as well as provides numerous strategies and approaches that can be adopted. A few industry best practices are also presented to ensure your migration journey is successful.

Evolving RPA landscape

Like any other automation product, Robotic Process Automation is fast evolving, with more players entering the market every single year. RPA in comparison to the traditional process transformation approach is the definitive way to automate processes for speed and predictable execution.

However, the new generation of RPA providers have a lot more to offer, such as:

- Make implementations easier with **no-code** or **low-code** platforms and applications.
- Help **integrate** with existing legacy platforms.
- Combine **Cloud** and **UI automation**.
- Make **Citizen automation** a reality for better adoption.
- And most importantly provide a **well-integrated cost or licence structure** to help scale up as you go.

"Intelligent automation will push organisations flat, wide and anxious."

The Forrester Wave™: Robotic Process Automation, Q1 2021
The 14 Providers That Matter Most and How They Stack Up

Mindset and roadblocks to migrate

If you have already invested in an RPA product and are facing the challenges listed earlier, it certainly is time to rethink and look for smart and cost-efficient solutions that provide you with easy migration from the existing set-up to the new one. Ideally, you should not face any disruption in the day-to-day operational flow or cost escalations. This is easier said than done! However, if the aim is to improve the productivity of the processes, and continuously find better ways to automate, you may need to consider migrating.

Here are some common roadblocks that you are bound to face if you decide to migrate and how you could build a strong business case that will help you eventually migrate to a new generation RPA product.

1. Return on CAPEX investments
Organisations that have already implemented an RPA product have allocated funds for Capital Expenditures (CAPEX) as a part of the project. If the existing RPA product is due for renewal or end of life, then this presents a unique new opportunity to position a new generation of RPA products. If the existing RPA product is not due for renewal or expiration, additional CAPEX will be required. In this case, it's important to explore RPA tools that promise substantial and cost-effective margins in the short term or provide quick gains that help you offset the CAPEX faster.

2. Program management and governance
The efforts of program management, time and resources required from both the IT and Business teams could consume significant time when switching to a new RPA provider. The new generation of RPA tools have a low-code or no-code threshold for entry, making it easy for even the citizen developers to automate their processes. Additionally, with UI and cloud-based options as solutions, RPA implementation can be more effective and achieve a higher degree of maturity and fit.

3. Cost of parallel run
Organisations switching to another RPA product will definitely need parallel run time to ensure minimal disruption of day-to-day business process activities. This implies cost of maintaining both the platforms for a period of time to reduce the chances of failure or risks associated. Parallel runs are especially needed for mission-critical bots. However, parallel runs may not apply for every single bot and the migrating project team should decide when to go for parallel production runs based

on the Application Assessment check-list (explained in the Migration toolkit section). The migration project team can also set up a new consumption-based RPA service to mitigate the cost of parallel runs. This allows customers to pay as you grow the footprint to the new generate of RPA platform.

4. Operational and training hassles

Remapping the implemented processes into a new system, retraining the required teams on the operational aspects and the change management facets can be a nightmare and discourage from switching RPA platforms. Change management is more essential than ever as it is usually very difficult for functional or operations teams to understand why the migration is necessary. In reality, this is a CTO/CIO level strategic decision to consolidate and move everything to a single platform of choice that provides new generation of features.

For example, if you already have made Microsoft investments in Office or Windows, then certain features of Power Automate are included and available to you. This allows you to begin your automation journey right away. Additionally, to make the operations teams self-sufficient, the low-code/no-code friendly environment makes it easy for the citizen developers to adopt the tool and save additional development costs.

5. Customers with and without large Microsoft footprints

What does migration mean for customers who are not current Microsoft cloud customers? Would they really get all the benefits by moving to Power Automate? Is it possible for them to migrate?

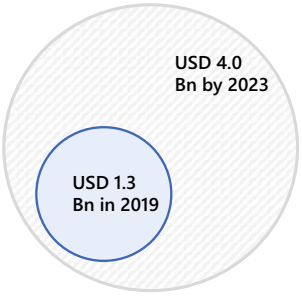
- Non-Microsoft cloud customers can leverage the premium connectors, such as S3, Redshift, etc., which help integrate its processes using Power Automate. If connectors are not available for GCP, Terraform, etc., custom connectors can be created. Microsoft's 'Work with all' philosophy helps enable a cross-cloud ecosystem.
- For customers already using Microsoft Azure, Power Automate provides direct and native integration with 25+ Azure services, at no additional cost. These services are especially critical for end-to-end (E2E) automation scenarios. This is especially important as automation scenarios involving Office and native integration with services like Azure AD make it seamless and more secure for Enterprise Readiness. It also acts as the first step to an iterative approach for Azure adoption.

Why migrate to Power Automate?

Both Forrester and Gartner in their recent 2021 reports have respectively highlighted Microsoft Power Automate as a débutante entrant and steadily making its mark as a leader in the market. Technically, it is not a new entrant. Microsoft Flow was introduced in 2016, however, the pivotal moment came when it unveiled Power Automate in 2019 with a host of new and sophisticated features, which helped the product pace up with the other established brands in the market. With the acquisition and integration of Softomotive, Power Automate now offers a complete E2E solution for all automation needs.

With reference to Microsoft, Forrester quoted in their report:

"The software giant's vision is to deliver the most comprehensive SaaS- based intelligent automation solution: Power Automate is a cloud- native, low- code automation platform that brings together UI and API based automation with AI."



The RPA total addressable market is expected to exceed USD 4 Billion by 2023. At the same time, Power Automate RPA is disrupting the market as it is a productivity tool for both professional and citizen developers to build automation through UI, without code.

Here are some clear reasons that make exploring Power Automate worthwhile when re-establishing your RPA platform investment:

1. Automation at scale

- Allows you to efficiently scale automation across your organisation. Everybody from end-users, professional developers, to IT teams in the organisation can easily automate workflows using on- premises and cloud-based apps and services.
- The citizen development charter provided by Power Automate is perpetually non-existent with traditional or most existing tools.

2. Seamless and secure integration

- Helps build secure integrations at every level. Enables users to confidently build automated workflows in a secure, compliant manner so the skilled IT resources can focus on more complex and governance work.
- The fact that citizen developers can create their own workflows with the UI capability is a major benefit to making Power Automate a hands-on tool for just about everyone in the organisation.

3. Accelerate productivity

- Helps minimise repetitive, manual, time-consuming tasks and creates more time for teams to focus on strategic work with easy-to-use low-code or no-code tools, templates and connectors.
- It is easy to enable Power Automate's capabilities across the organisation, without additional costs for citizen development by leveraging the features included in Office. If anything is required beyond the scope of Office, it can be developed by the Automation Centre of Excellence (CoEs) by working in a federated model.
- The flows can be developed with minimal learning. Configuring the flows is simplified with visual drag and drop mechanisms of 4GL (fourth generation language), which encompass the no- code or low-code suites. Microsoft Power Automate also provides an additional easier option for pro- code developers. It certainly is an inclusive platform that is easy for anyone in the organisation to use.

4. Intelligent automation

- Increase efficiency through AI-enhanced automated workflows. The platform streamlines how you work by combining the power of AI with automated workflows and business processes.
- The AI Builder capability in Power Automate provides AI models that are designed to optimise your business processes, through a point-and-click experience, with no coding or data science skills necessary. You can build custom models or choose from prebuilt models that are ready to use for common business scenarios.

5. True power and capability of automation in cloud and on-premises

- Power Automate provides automation in true essence by providing the right fit automation strategy.
- Close integration with the Microsoft ecosystem provides acceleration by making the native integrations easy.

Power Automate drives business transformation

Learn how businesses reduce development costs and increased overall efficiency using Power Automate in this commissioned Total Economic Impact Study ™ – Forrester

199%	USD 1.41M	27.4%
ROI over three years	Worker time savings over three years, after applying a 50% productivity capture	Reduced errors due to increased automation

"Power Automate **empowers everyone, from end users to technology experts** – to start automating mundane tasks, it brings together both attended and unattended RPA capabilities."

Gartner 2021 Magic Report for RPA

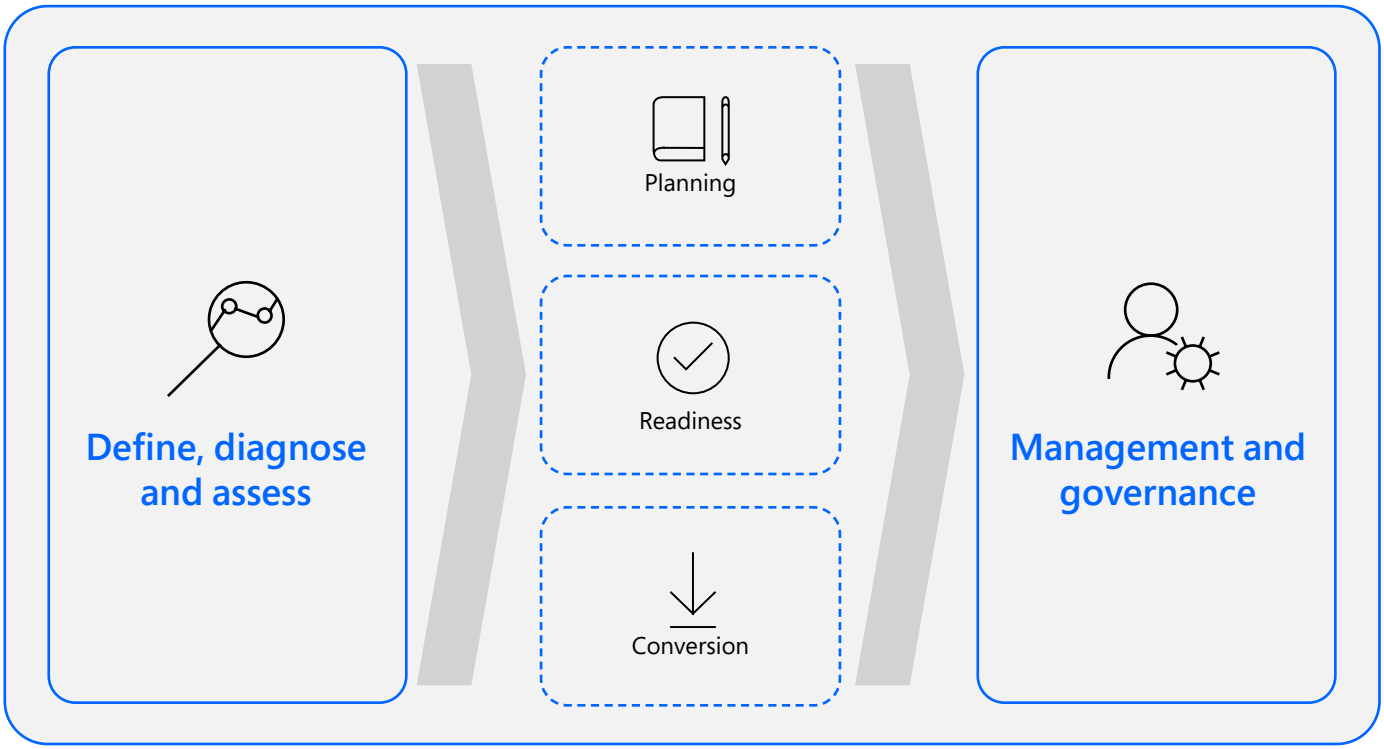
6. Strategic alignment

- For every organisation, the cost of any initiative is a major consideration. By leveraging the Power Automate's features that come natively with Office and Windows, citizen developers can easily automate their daily activities. Additional features, if required, come at a reasonable cost and are also differentiators as they may not be available in the traditional RPA products.
- Many RPA implementers are yet to recover their high costs of infrastructure and development, be it micro or mega. With Power Automate such infrastructure costs can be avoided from the very beginning.
- Finally, with centralised governance across services built-in, Power Automate also comes from a strong family of solution focused low-code products in Power Platform that make it very natural to use all its related service products. Power Automate can take advantage of Dataverse as its native data source with a relational structure, Chatbots can be easily built with Power Virtual Agents, functional apps can be quickly rendered with Power Apps and finally reporting can be provided by Power BI.

Your RPA migration toolkit

A detailed and structured approach is a must in any type of migration to establish sustainable outcomes that are quantifiable for ROI validation.

The recommended approach for your RPA migration to Power Automate is outlined in the next few sections. It is a comprehensive guide that provides key pointers that you should be aware of while transitioning from one stage to another in the migration process.



I. Define, diagnose and assess

1. Key considerations to define your migration goals

The above section on 'Why consider migrating to Power Automate' provides considerations and perspectives on what Automation COEs will need to address as they embark on the migration journey and build a business case. Using these as leading indicators, answer the below questions to critically evaluate migrating to Power Automate.

- **Clear motivations:** Why are we adopting Power Automate?
- **Defined business outcomes:** What results do we expect to see by adopting Power Automate?
- **Business justification:** How will the business measure success?

Every member of the migration and implementation team should be able to respond with clarity to the above three strategic questions. There needs to be clarity in understanding the metrics behind the adoption plan, and every accountable team member in the project should understand the complete picture.

Another way to articulate the motivations to migrate to Power Automate could be based on the organisational events:

Business eventer	Considerations
Need to shift platform to reduce cost	Cost implication for adopting a new RPA tool
Mergers, acquisitions or divestiture in your organisation	Reduction in the vendor or technical complexity
Recently moved to Office 365	Leverage and implement native cloud services and consolidated footprint on cloud
Lack of features, restricting you to scale automation beyond unattended automation	Implement more complex front to back-office automation through the use of a cloud-native automation platform
Response to regulatory compliance changes	Preparation for new technical capabilities
Already using Azure or plan to increase workloads	Take full advantage of the 25+ native Azure services available and the use of load code

Identifying your motivation and business outcomes helps you to define your strategic migration goals. This will also help you create a strong business case to ensure your executive leadership sponsors the migration efforts.

The next step is to diagnose and assess your existing landscape of the automated processes, build requirements, track to close gaps and set up technology connectors to help you plan better. Ensuring all aspects are assessed helps you avoid silos/island implementations or any other roadblocks that dissuade the migration strategy.

The recommended approach below provides guidance and a framework for you to assess the current digital automation landscape to plan your migration strategy better. Before we talk about the discovery and assessment framework, let us look at the broader framework for migration. Here are a few steps you will most likely follow on the migration path.

Understand your automation estate by conducting a set of assessments of the existing landscape and then:

- Build recommendations for migration and planning
- Build and migrate
- Test and release
- Set up hyper care and support

Critical considerations for the Diagnose and Assess framework is the following:

1. Application assessment

2. Infra and environment assessment

3. Security assessment

1. Application assessment:

The idea is to understand the details on types of applications that are in the scope of the automation and their characteristics. Some parameters to be considered are listed below:

Parameters	Value	Implications and solution options
Target application type	Web-based	Assess the compatibility of the target apps with New Edge, Chrome or Firefox. Adjust if some apps are running on IE 11. This will ensure a smooth transition to Power Automate.
	Green terminals	Make a list of all green terminal emulators and validate compatibility with Power Automate.
	ERPs like Salesforce, Workday	Many ERP automations are UI-based, brittle and prone to failure. Power Automate has several (450+) connectors that can eliminate UI automations. Replace them with connector-based reliable automation through prebuilt APIs.
	Home grown intranet applications	Consider if web services can be exposed for these apps or if custom connectors can be built that provide long-term value and leverage API-based automation. Even if not, Power Automate provides the default UI flows to fall back on.
	On-premises resources (drives, databases)	For network files, local files, etc., consider using the file system connector to move data to Power Automate cloud.
	Ticketing and service systems like ServiceNow, Remedy	Many automations today are UI-based, brittle and prone to failures – Power Automate has several connectors that can eliminate UI and replace them with connector-based reliable automations.
	Office 365, Exchange Online, SharePoint Online, MS Teams	Power Automate has several connectors that integrate very well with office products and work seamlessly.
	SAP	A mix of connectors and UI automation are already available for SAP. In case certain SAP operations cannot be accessed via APIs, you can consider UI automation via Power Automate Desktop to automate them.
	Citrix apps	Power Automate can perform Citrix automation natively, based on image recognition.
	Databases	Utilise Power Automate DB connectors out of the box (SQL, Oracle, DB2, Azure, AWS, etc.).
	Thick Client	Assess if your thick clients are certified or will work on Windows 10. If not, a pre-requisite migration to Windows 10 or Windows 2016 is required before these become ready for Power Automate.
	Business Data for Analytics	Utilise Azure services or PaaS options to store business data for analytical purposes.

It is important to do an in-depth assessment and build a bot migration checklist, with implications for every parameter to avoid missing out on any additional considerations.

2. Infrastructure assessment

Next, it is important to understand the infrastructure and environment for the automation in scope. Parameters to be considered are listed below:

Parameters	Value	Implications and solution options
Licensing	Bot licences	Traditional non-UI based automations today require licences, software and hardware investments from Enterprise customers. Power Automate Cloud flows can significantly reduce cost by offering a trusted cloud environment to build and manage non-UI based automations.
Bot environments	Bot designer	Runtime is optional for Cloud flows. It is only needed for Desktop or UI flows. Power Automate helps significantly optimise VM costs.
	Bot runtime	Many ERP automations are UI-based, brittle and prone to failure. Power Automate has several (450+) connectors that can eliminate UI automations. Replace them with connector-based reliable automation through pre-built APIs.
	Orchestration or control rooms	Power Automate brings significant benefits due to the inbuilt cloud-based orchestration capabilities – no hardware, software, load balancers and databases are required.
Resources	On-premises resources	Since several components of Power Automate are cloud-native, questions may arise on how to consume on-premises resources. Power Automate provides options to install a gateway that will connect with the shared drives and on-premises databases. If you cannot install gateways, you can also configure Machines and Machine groups to connect directly to the Power Automate cloud to run desktop flows.
	Ticketing and service systems like ServiceNow, Remedy	Many automations today are UI-based, brittle and prone to failures – Power Automate has several connectors that can eliminate UI and replace them with connector-based reliable automations.
High availability/ disaster recovery	HA and DR requirements	Backed by Azure, Power Automate ensures strong uptime, so HA/DR costs and requirements can be eliminated. You will still need to plan for uptime for the VMs used by desktop flows, but no platform level HA or DR for control rooms, databases and so on are required.
Logs	Retention	Log retention beyond the default 28 days may require some alternate provisions on a cloud storage. This is essential if detailed analytics is required.
Deployment	Power Automate Cloud and Desktop	Power Automate cloud flows have several advantages, but will require network teams to open ports to access on-premises apps. Consider this before deciding to move certain existing bots to a cloud flow. Large Enterprise customers will likely end up with a combination of Cloud or Desktop flows from their existing inventory of legacy automations. Power Platform Administration ALM (Application Lifecycle Management) best practices should be followed to move all the flows to production. Baseline monitoring and governance is also available, which can be extended.

3. Security assessment

Finally, security requirements should be assessed for the automation in scope. Parameters to be considered are mentioned below:

Parameters	Value	Implications and solution options
Role-based security	Multi-tenant security	Configure using AAD groups on which automations are accessible to the business units in your enterprise. Make the AAD change to seamlessly flow into Power Automate.
	App credentials or third-party solutions	Move to either Azure Key Vault or Web service-based CyberArk or an equivalent third-party vault.
	VM credentials	VM credentials can be configured using on premises gateways to schedule and run flows.
Data	Personal and identifiable information (PII)	If your current bots are accessing PII that you plan to replace with Power Automate Cloud flows, a careful assessment is required on options available to ensure the security of the PII or use desktop flows.
App authentication	Authentication	When using Power Automate connectors with cloud apps (either COTS, ERP or custom), ensure that these apps expose Power Automate supported authentication mechanisms such as SAML, OAauth, AAD and so on.
	Multi-factor authentication (MFA)	For MFA leverage the MFA API to create custom connectors or custom utility in case of Power Automate Desktop.

Creating a migration business case

After the assessment results are prepared, Chief Automation Office (CAO)/Automation COEs should create a business case. A business case provides the technical and financial timeline of your existing environment and helps list the opportunities for reinvestment in modernisation. Developing a business case includes building a financial plan that takes technical considerations into account and aligns with business outcomes.

Some key components of the business case for migration should include:

- **Automation scope: Environment, technical and financial scope**
- **Baseline financial data: Cost to run today**
- **Projections: Current versus the future cost of operations**
- **Projections: Migration timeline and operating costs**

Share your business case with the sponsors of the programme for approval

Your business case should be tailored to your organisation's goals and business outcomes. After you have shared your strategy, respond to and address the questions raised by your stakeholders. Some of these questions might be challenging, so it's an effective practice to consider what you might be asked and plan your responses in advance. Consider the common goals, drivers and expected outcomes of a Chief Automation Officer (CAO), Chief Technology Officer (CTO), Chief Digital Officer (CDO), Chief Information Officer (CIO), Chief Financial Officer (CFO) and the finance team and get an approval from all stakeholders.

II. Planning

Once the business case is approved for migration, meticulous planning is a must for executing the migration. You need detailed timelines, allocated resources and defined responsibilities of who will do what and how will it progress, as well as get evaluated. The methodology below is explained under the assumption that you do not have Power Automate Desktop set up in your enterprise, and you are already using another RPA tool and would have an Automation COE in place.

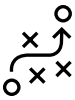
Here is a checklist that will help you plan the migration effectively:

Inventory the processes you want to migrate

Based on the outcomes of the assessment, factor complexity and estimate efforts required to migrate the existing bots to Power Automate. Categorisation of each process to be migrated into Simple, Medium and Complex is necessary. Best way to define these standards in the context of Power Automate would be to use inputs from the proof of concept you have done across Cloud Flow, Desktop Flow and combination of AI Builder and custom connectors.

Plan for migration of processes in waves/sequence

Based on complexity of the processes, categorise them into waves (of migration) such that there is minimum impact to business continuity. Our experience shows an iterative approach (in waves) to migration helps mitigate risks with a 'fail fast approach'. Apply the learnings from previous phase and continue to make the migration experience smooth.



Design the development framework for Power Automate

Define design considerations for a framework across the old and new RPA platforms like command mismatch issues and usage of queues and connectors, to help you create a framework to migrate. A defined development framework that creates a boilerplate template for Power Automate Desktop will serve later as a best practice document for coding.

Set up the Power Automate environment

To set up, ensure you define the architecture across all the environments, plan for set-up of Development, Testing and Production environments. Keep in mind and plan for multi-tenancy using existing Active Directory group. Request for access, test data and machines for conversion. All necessary Network Security Group/Application Security Group policies must also be defined.

Training enablement

Prepare the COE teams for using the product. This enablement should be across roles such as administrators, business users, automation developers, functional consultants, solution architects, etc. You can visit this link for learning modules from Microsoft. 'RPA in a Day' is a key training module with a hands-on approach. The table below will give you an idea of the roles and modules for training and the skill proficiency required to train the resources.

	No Code	Low Code	Pro Code
Roles	• Business Analyst • Business SMEs	• Technical Consulates • Support Engineers • Citizen Developers	• Architects • Developers
Modules	• Power Platform Fundamentals (PL 900) • Power Platform Fundamentals (MS 900) • Azure Fundamentals (AZ 900)	• Power Platform Fundamentals (PL 900) • Power Platform App Maker (PL 100) • Power Platform Functional Consultant (PL 200) • Power Platform Developer (PL 400)	• Power Platform Functional Consultant (PL 200) • Power Platform Solution Architect (PL 600)
Skill Proficiency Required	Technically inclined Logical reasoning Design & architect Develop bots	Technically inclined Logical reasoning Design & architect Develop bots	Technically inclined Logical reasoning Design & architect Develop bots

Roles and responsibilities during migration

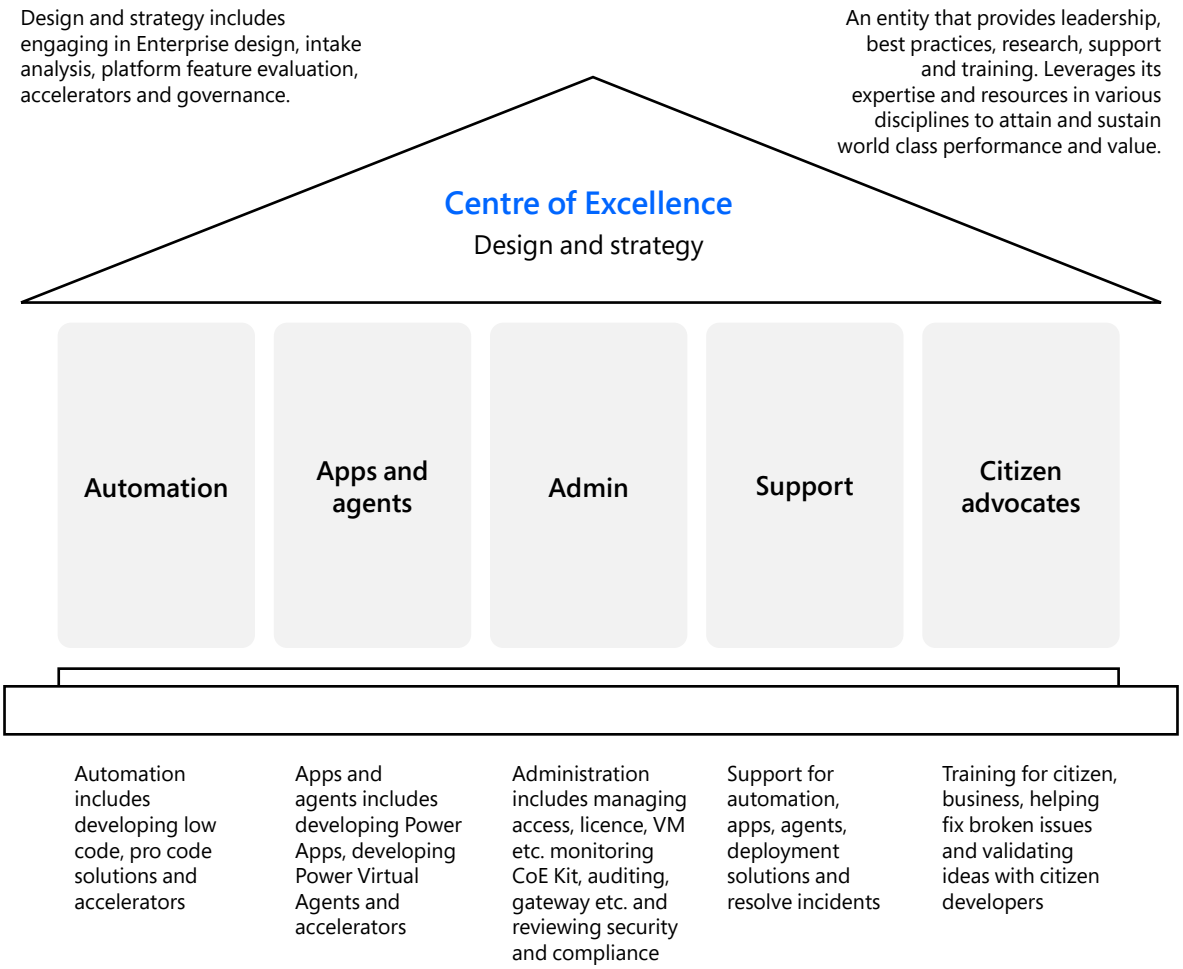
Define the Power Automate Operational Model and articulate the roles and responsibilities of the project team members. This should not just cover the automation teams, as a key success criterion for migration is that the business users also contribute to digital productivity through enablement. The productivity level of the Business Unit/Corporate Functions should be an additional KPI/OKR tied to the migration effort. For an effective ROI, leverage the business users for migration and ensure they are part of the RACI.

Licensing strategy

Work along with your Microsoft Account Representative or partner to define a licensing strategy that best suits your organisation. There are many options available, and it is very easy to understand the best strategy when it comes to pricing. It is important to look at the current Microsoft cloud licensing structure where Power Automate comes included with other products as this can help you get started with some part of the migration early. For more details visit this link.

A core consideration during planning is to decide whether a Power Platform CoE should be set up and/or whether Power Automate should be embedded into the existing RPA CoE. A CoE is designed to drive innovation and improvement, and as a central functioning team, it can break down geographic and organisational silos.

The Microsoft COE Starter Kit provides a collection of components and tools that are designed to get you started with the development strategy for migrating to Power Automate. It also provides a host of tools you can explore about the entire Microsoft Power Platform, such as 'low-code apps, agents, analytics, etc'.

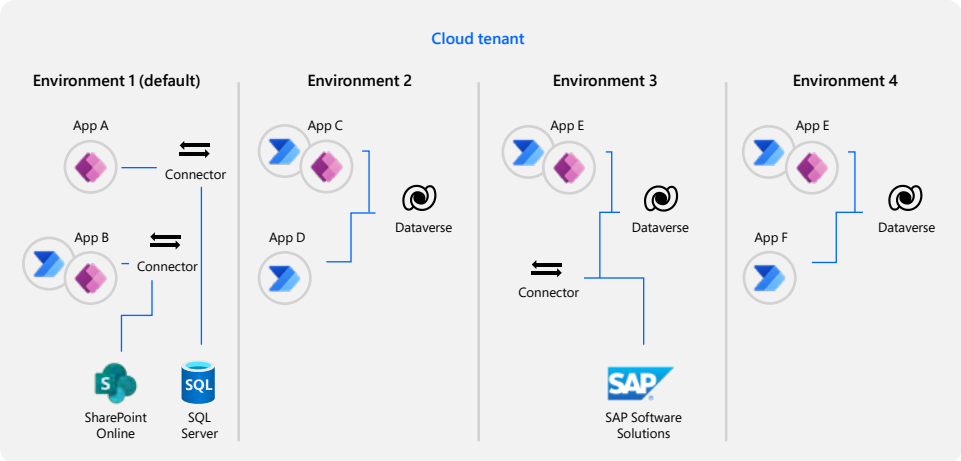


III. Readiness

Setting up the Power Automate environment is a vital process, and getting it right early is critical to the success of the overall migration programme. Collaboration across stakeholders within the organisation (IT and Infra, InfoSec, Microsoft admin team, Cloud Ops, etc.) is a must. Most customers often do not gain adequate buy-in from their stakeholders before they begin. Considering that readiness as a component for automation migrations is relatively new, you may not find too many best practices on the topic. It is advisable to work with Microsoft and/or certified System Integration partners to get it right the first time.

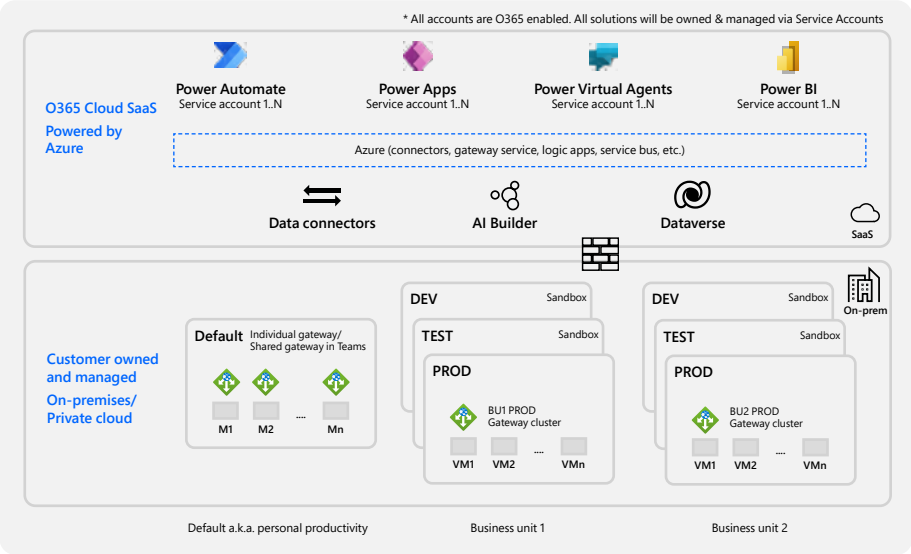
Set-up of Power Automate and associated steps (visit platform administration and governance for more details) are not the scope of this white paper, however mentioned below are some imperatives to consider.

- Identify a **central team** that will set up and implement the environments.
- Know the Power Automate environment and governance. Assign Power Platform service admin role which grants users' full access to Power Automate and other components from the Power Platform family of tools.
- Establish your tenant and environment strategy. Exclusively provide access only to admins to create net-new and/or production environments and automate the process of requesting new environments through ALM tools in your enterprise.

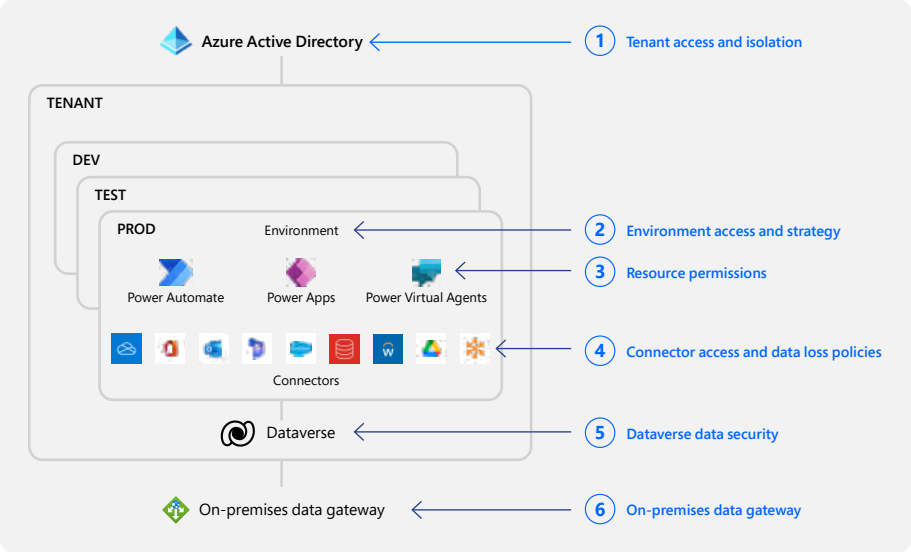


Strategy for:	Environment 2, 3, 4
Departments	HR, Finance, Operations
Application	Development, UAT, Production

- Define your Power Platform blueprint for the organisation (Digital Worker Accounts, Licences, VM Farm, Gateway).

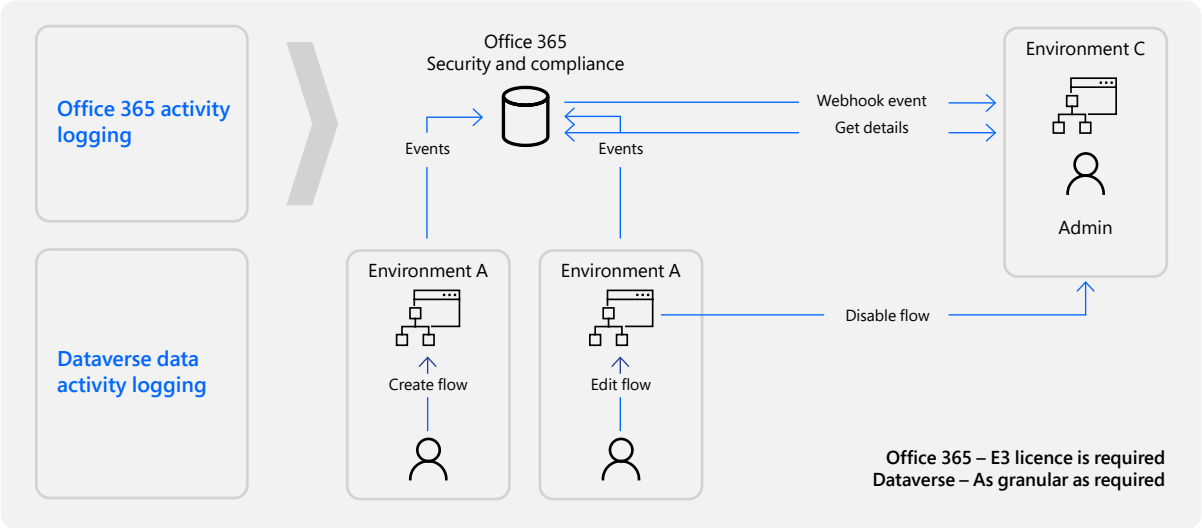


- Set up data loss prevention (DLP) policies.
- Understand and implement the security controls at various levels to address application risk, user risk, device risk and data risk.

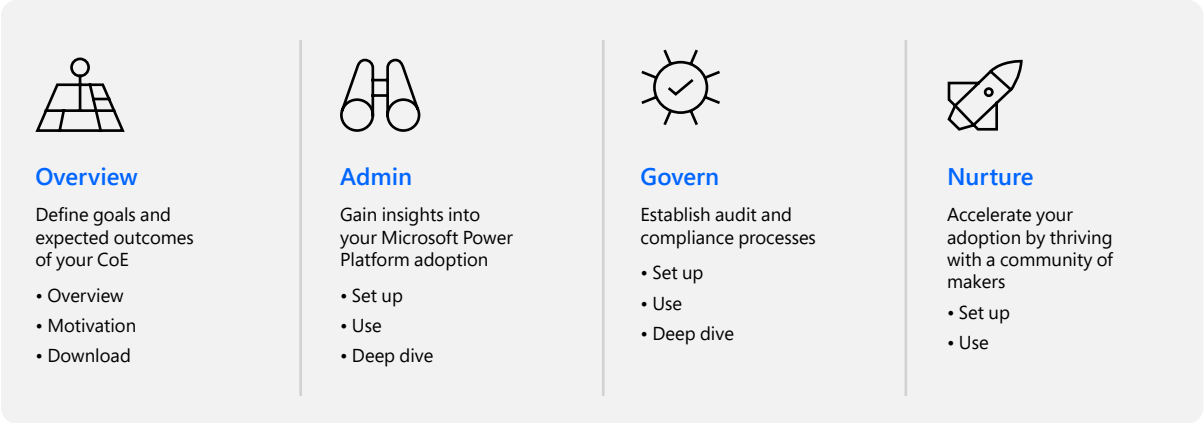


- Define the compliance certification strategy for your organisation: Consider getting the environment certified for your needs like healthcare customers may require a HIPPA certification or Utilities customers may require NERC compliance. Involve Compliance teams to get the platform certified for usage. (See here for more details)

- Implement the monitoring policies by leveraging out-of-the-box analytics and logs.



- Implement the CoE kit which helps in monitoring and managing the platform in an easier way. (See here more details on starter kit)



- Welcome new users and identify champions.
- Establish Automation CoE or expand the current CoE to help accelerate your adoption of the platform by investing in nurturing organic growth of RPA users, while maintaining governance and control.
- Set up ALM for the applications, which includes governance, development and maintenance. ALM also includes these disciplines: requirements management, software architecture,

development, testing, maintenance, change management, continuous integration, project management, deployment and release management. More details are available here. The aim is to democratise healthy ALM practices by making them accessible to all types of users looking to use the automation platform, i.e., citizen developers or pro code developers.

- Set up DevOps pipeline to move from manual to automated ALM: Export solution from your development environment containing your automations and customisations, unpack your solution and store the components in your source control system. Use Azure pipelines to manage your components, and then deploy them to the target environment for testing. Finally, deploy to the production environment for user consumption.

Once the platform environment structure is enabled, performing a series of POCs will enhance confidence in the components of the platform and also help you understand if any amends are required. Here are a few pointers to help you with the POCs:

- Start with a simple use case that covers Desktop Flow.
- Move to use cases that cover Desktop Flow and Cloud Flow.
- Expand the use cases to introduce the AI Builder component.
- Further, add Approval Flow which requires humans in the loop (through MS Teams).
- Top-up the above scenarios by adding a custom connector (for home-grown applications) in scope.

Once the above exploration is complete you will have a clear picture to categorise the existing implementations and re-validate the business readiness matrix that you created as an outcome of the assessment phase. Based on this, re-validate your migration (explained in next section) project plan as applicable. There will be learnings from the POCs that will help you adjust the timelines for migrations at the business process level.

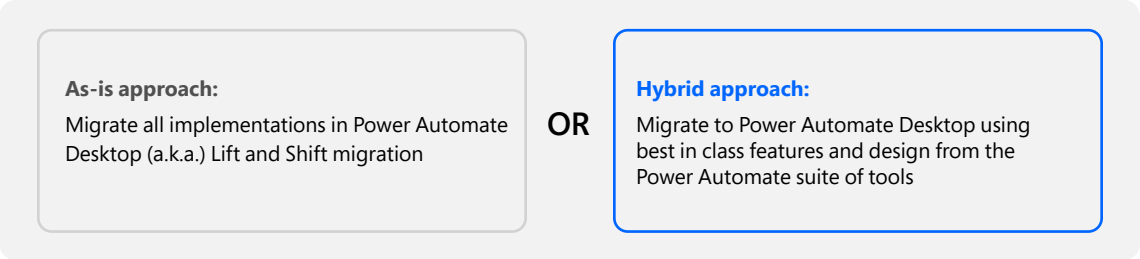
IV. Conversion

Now that you have set up your Power Automate environment and Automation CoE to manage and govern, you can start the migration. Inputs from the assessment of each process (refer to the Assessment section in this document) and your POC outcomes should have helped you build a migration plan that best suits your enterprise. At a broad level, migrations fall into two categories.

Generally, there is a push or tendency to migrate the current processes as-is to the new platform using Power Automate as a desktop automation tool. This is a good approach, but there are even better ways in which you can approach migration. Consider re-designing the processes to leverage the best-fit features that Power Automate offers. Appropriate use of these features enables optimal use of the licences available. In addition, using the various connectors while integrating existing APIs, databases, etc. could increase the ROI significantly. Finally, establish a rationale or justification for retiring some automations either with or without redesigned processes or use of new features.

In short, while the as-is approach to migration is the fastest way to automate, it may not be the smartest way to migrate for optimal outcomes. On the other hand, a hybrid approach to migration aims at avoiding the anti-patterns, thus leading to better results.

Types of migration strategies that can be adopted



For As-Is migration Approach, use a prebuilt migration tool. Below you will find existing options of this tool that you can either implement yourself or hire a partner to implement for you.

- Softomotive migrator: Process migrator for Softomotive products
- Third-party extended migrators: ISVs and SIs are using the extensible versions of the above tools to build custom migrators for third-party software for their customers. An example is available here: Blueprint RPA Migration Assistant. Engage your RPA implementing partner or work with your Microsoft representative to learn more.

Let us look at examples to understand the various design patterns that can help you evaluate your processes for the As-is and/or Hybrid Approaches.

Current process/ Use case	As-is approach	Hybrid approach**
Download Excel sheet from email and send notifications to Business owners of the process.	Excel, Mail and Outlook Packages in PAD can be used to create a similar process that runs on Windows VM.	Use Power Automate template for 'Save Outlook.com email attachments to your OneDrive' using cloud flow and send notifications.
Classify emails and route them to the right SME.	Use PAD to create a similar process that runs on Windows VM.	Use Power Automate template 'classify email messages using AI builder' cloud flow and route email to right SME.
Automated approval process (from approval request to a response).	Use PAD to create a similar process that runs on Windows VM and integrate with multiple API endpoints.	Use 'Approval Connectors' or 'MS Teams Connectors', in Power Automate to notify the approver and allow them to respond from their workstation or mobile using the Outlook app or the Power Automate app.
Read an email attachment and file a claim accordingly.	a) PAD uses Outlook client-based email extraction (other options could be to use Exchange Web services). b) OCR Package in PAD can be used or AI Builder can be used or Azure Cognitive connectors. c) Open the webpage in Chrome, log in to Claims Application, Enter data and logout. d) Sends emails using Outlook client.	Rewrite as cloud flow (or a combination of cloud and desktop flow with custom connectors) – a) Utilise Power Automate 'Outlook connector' in a cloud flow. b) Use AI builder for data extraction from attachments. c) If an API is available for Claim application, create a custom connector for filing. d) In case a custom connector is not available, use the desktop flow for the filing part.
Check Salesforce for onboarding requests and assign a task in ServiceNow and send a reminder in Teams	a) Using PAD, navigate to Salesforce portal using surface automation (assuming API is not enabled). b) Assign a task in ServiceNow using surface automation from PAD. c) Use API integration for sending a reminder in Teams.	Rewrite as a Cloud flow – a) Utilise Power Automate 'Salesforce connector' to extract pending requests, b) Utilise 'ServiceNow connector' to create a task or ticket, and c) Use the 'Microsoft Teams' connector to send a reminder to the business user.

Current process/ Use case	As-is approach	Hybrid approach**
Extracts information from a .PDF document using an OCR. Extract the reference number, search an admin system and send back the current status.	a) Flow #1 Use PAD (Power Automate Desktop) to read email using Outlook client, download attachment in a shared drive. b) Flow #2 OCR platform picks up the file and processes the file, Ops users logs to the OCR platform validation station to approve the extracted content. c) Flow #3 PAD picks up the extracted content and logs to SOR to search for the reference number and send the status of the order via email.	Use a combination of cloud, desktop or custom connectors as flows. Cloud flow #1 uses Azure Cloud OCR/AI Builder and extract reference number. PAD flow #2 that searches the admin system to send emails.
Trigger a process from a warehouse/ workshop/field – software or hardware based **triggers**	Not Applicable	a) Use software-based triggers when a device is available and online. b) Use a Power Automate Button Flow in the Power Automate Mobile app (software) c) Use an IoT Button to trigger the Power Automate Flow (if device is unavailable and hardware is required) Actions – Call a Cloud/Desktop/Business Process Flow.

** The above use cases are common examples to showcase the likely outcomes. Actual viability may vary during implementation for custom requirements, based on the IT landscape of the organisation.

The table below will act as a reference to transform your existing process. The component column refers to types of flows applicable, when considering the migration approach within the same process, thus helping you save on licence costs and maximise the overall ROI on the process once it is migrated. The rationale column indicates justification for why you should choose a particular component.

Component	Description	Rationale
Cloud flow	• When connectors are available • When custom connectors can be created by using the APIs • Process does not mandate UI interaction	• Licence • VM • Ongoing infrastructure, Operating costs
Desktop flow	• When connectors are not available • All systems involved are legacy system without any API or DB access • Process mandates UI based interaction.	• Licence
Business process flow	• When a process needs multi-stages, approvals, audit log and condition branching. Example: Any flow that is implemented using SAP Arriba, ServiceNow Workflow.	• Licence • VM • Ongoing infrastructure, Operating costs
Button flow	• In a factory/warehouse, a user has mobile/IoT enabled physical buttons	• Instant execution or alerts • Ease of access • Compliance • Time adherence
Human in the loop for approvals	• When a process needs human and bot collaboration consider using Team's channel for 'human in the loop' approval mechanism	• Licence cost • Ease of access • Centralised audit trail

Re-designing the existing process using the Hybrid approach will help you optimise the migration to Power Automate. Ensure a release planning session is conducted with all the stakeholders for the conversion phase. For the actual conversion of bots from an old to a new platform, please follow your organisation's BOT SDLC (B/RDLC – Bot/Robotic Development Lifecycle) approach. Most organisations would prefer to migrate in tranches/waves iteratively. Here are few steps:

Develop in Power Automate (Cloud, Desktop, Business Process Flow, Button Flow)

- Inculcate architectural best practices, while designing your flows during development. Review details here: Power Apps and Automate Architecture Series | Microsoft Power Apps

Unit testing, integration testing

- Validate the solution developed against the test case scenarios.

User acceptance testing

- Validate the solution with the Business/SME team involved.

Signoff

- Use the appropriate process for getting signoff from users and stakeholders.

Documentations

- All necessary documentation must be completed. Capture the documents and signoff in a centralised repository. Manage changes from existing Process Design Document (PDD), System Design Document (SDD), Technical User Manual and Support User Manuals, as applicable to the new platform.

V. Management and governance

In the context of migration from old to a new RPA (Power Automate), hyper-care and cutover (i.e., Switch from old to the new bot in PAD), guided continuous governance and structured efforts to manage the new processes, are a must. These help in raising red flags as well as provide overall insights on the progress at every stage in the migration.

Here are guidelines to be followed while planning a cutover as each process is ready for deployment after unit and integration testing:

Hyper-care:

1. **Blue/Green deployment approach to cutover**

   Let us say, the existing bots form the Blue prod environment and new the bots form the Green prod environment. Ideally, during the initial stages, the Blue prod should be active for say 90% of the time, while the Green prod are active only for 10% of the time. A task scheduler can be used to manually schedule it. For example, let's say the Blue bots will operate from 9:00 am to 4:00 pm followed by the Green Bots from 4:00 pm to 6:00 pm. Then again the Blue bots will take over from 6:00 pm to midnight. An arrangement like this is safer, rather than switching over to a new bot from day one after deploying to production. Eventually, the operational duration of the Green bots can be increased, once the comfort is established. And the Blue bots operational duration subsequently reduced and then archived. This approach must be adopted for mission-critical Bots. It allows you to control and make a safe cutover while engaging in the 'do no harm principle' as you migrate. Please note that during the transition time, you will need to support both environments and review primary and backup audit logs as needed. It is important to use the best practices shared to optimise the duration of the cutover time.

2. **Direct changeover approach**

   This approach implies that the old bots stop working and the new bots take over all the transactions, on the new Power Platform environment. This approach is advisable for simple to medium complexity process bots or bots used infrequently in production.

3. **Performance comparison parameters and monitoring of bots**

   Identify various parameters to compare performance between the old and new bots. Ensure you can measure the productivity of the old bots and the new bots alike. This needs to be defined during the design phase of the migration SDLC.

4. **Performance tuning**

   Based on the comparison in the previous step, you may need to identify various ways to increase the performance of the bots in the new platform, during the hyper care period.

5. **Training of support team**

   Arrange knowledge transfer sessions for the L1, L2 & L3 teams, supporting the new platform.

6. **Decommission bots in the old platform**

   After the hyper care period and with the Go-Live decision, to cut-over to the new platform, the existing bots should be stopped to free up the resources i.e., people, system, etc. and optimise cost. The plan to decommission the bot, after expiry should cover the following: Retire Service Account, Define Approach to Re-purpose IT Infrastructure and Deactivation of bot and old RPA licences.

7. **IT Service Management (ITSM)**

   In certain organisations, RPA solutions and operations are marked as a service. This helps maintain smooth bot operations and maps upstream and downstream processes to easily identify disruptions. If there is no ITSM practice for the RPA solution, but the RPA operation is available as a service, then it is strongly recommended to mark all the RPA bot solutions as service as well.

Overlaying the Governance model and defining the key roles will ensure adequate control and line of sight on the migration process. Here are some of the key roles:

Power Automate flow makers

Anyone, creating an app or a flow for personal productivity, increasing department efficiency or sharing across an organisation.

Application lifecycle management and DevOps admins

Employees taking care of those apps and flows seen as business critical. They set up and support environments for development and testing purposes.

IT department and data protection officers

Members of all departments related to a cloud platform service to operate, maintain and secure all platform related services and its surrounding areas.

Support and training engineers

Help maintain app support across organisation for business critical (line-of-business) apps. Support nurturing a low-code platform by ensuring readiness and community wide shared skills are inside the organisation.

Managing the migrated processes with adequate checks and balances. A continuous line of sight and feedback mechanism will help you iteratively apply the best practices and learnings to existing and new automation processes. Some of the key elements to keep in mind are:

- Ensure the governance team is formed, tools for approval and monitoring are in place.
- Data loss prevention policies are set up in alignment with the organisational policies.
- Solution guidelines are formulated.
- Change management guidelines are set and communicated with all teams and stakeholders.
- Compliance and ‘Do the Right Things’ culture is driven continuously.
- Certifications and review guidelines are known to all.

Happy migrating!

Concluding notes

Robotic Process Automation (RPA) has gained absolute popularity amongst industries to automate all non-value-add, routine or repetitive processes. However, it is equally important to keep a watch on the maturing RPA technology and ways to leverage it beyond just the quick wins.

As business and technology leaders who adopted RPA early, it is imperative to stay up-to-date with the emerging trends, various providers and upgrades. Assessing your current RPA landscape and migrating to newer technologies will provide improved productivity and enhanced ROI gains.

Here are the key take-aways to help you effectively migrate to a Low-code/No-code RPA, such as Microsoft Power Automate:

- Re-evaluate your existing RPA landscape with available newer technologies to enforce process effectiveness, stakeholder buy-in and business value.
- Diagnose and assess your process productivity versus cost. Avoid heavy infrastructure, maintenance and recurring development costs.
- Redesign or transform the processes before migrating to leverage the immense features available.
- Empower and encourage citizen developers to adopt and embrace automation efforts in your organisation.
- Drive efficiencies through hyper automation for a safe and smooth transition from the old to the new RPA.
- Work with partners to optimally migrate your platforms and solutions to Power Automate.

And as you migrate from your traditional RPA to Microsoft Power Automate, you have an excellent opportunity to take advantage of the entire Microsoft Power Platform that offers Power BI, Power Apps and Power Virtual Agents, along with Power Automate.

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3. Predicts 2019: RPA Evolution

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